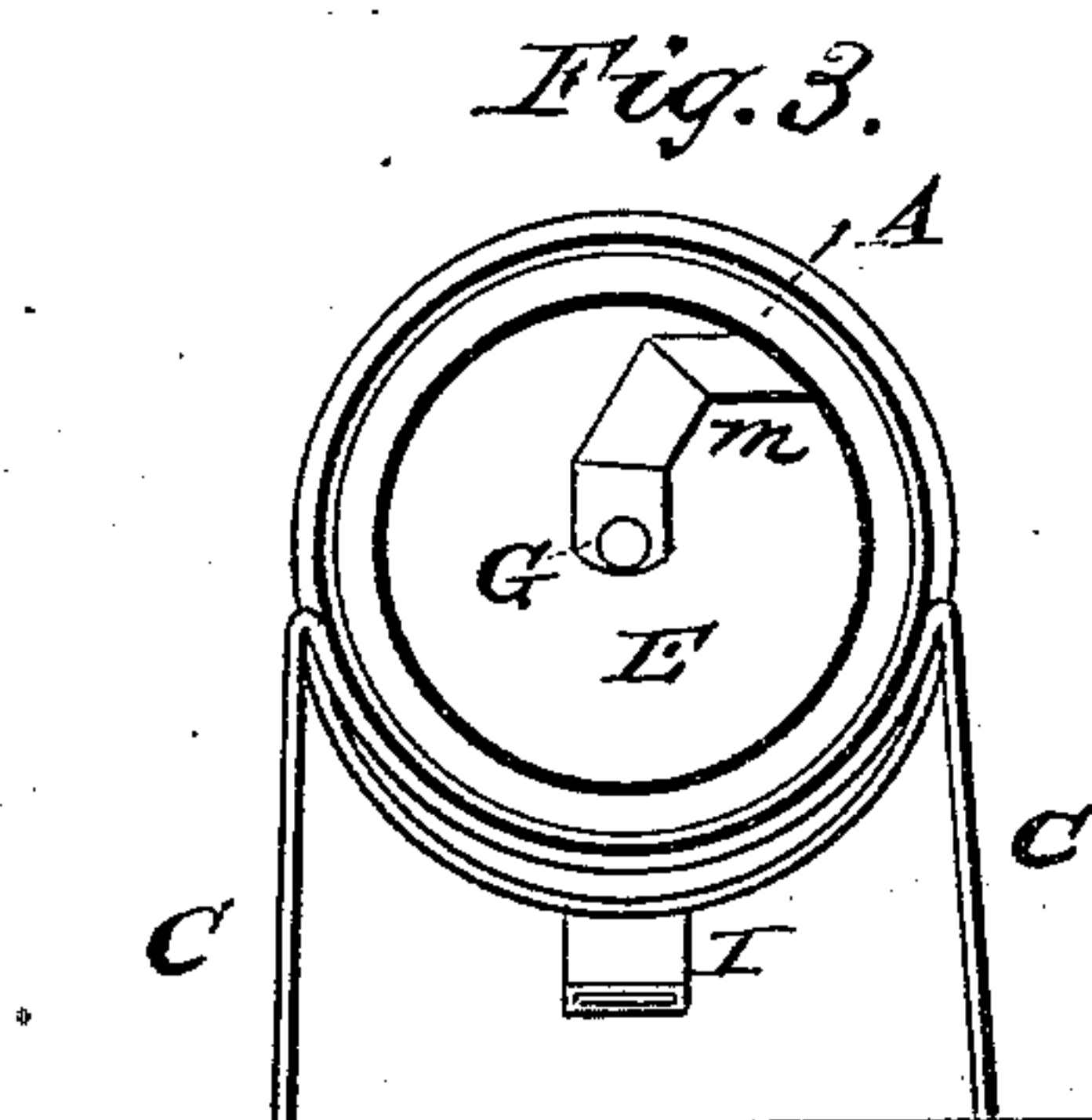
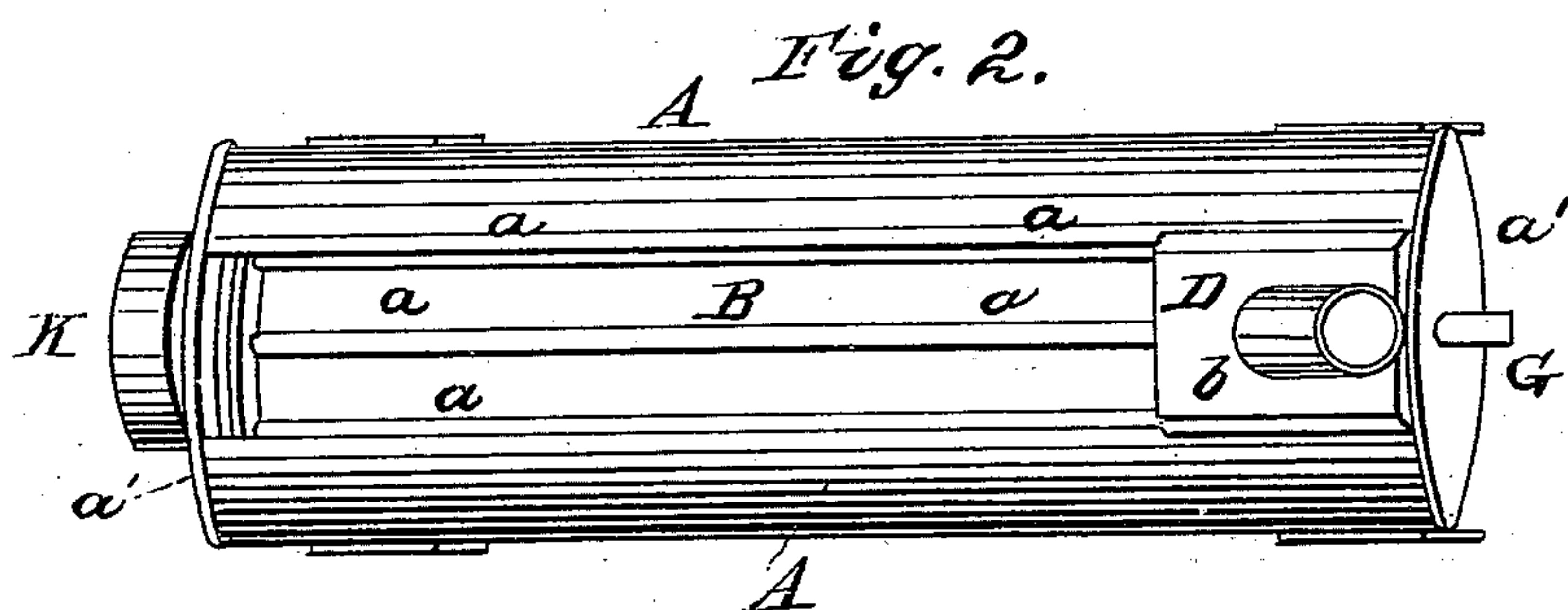
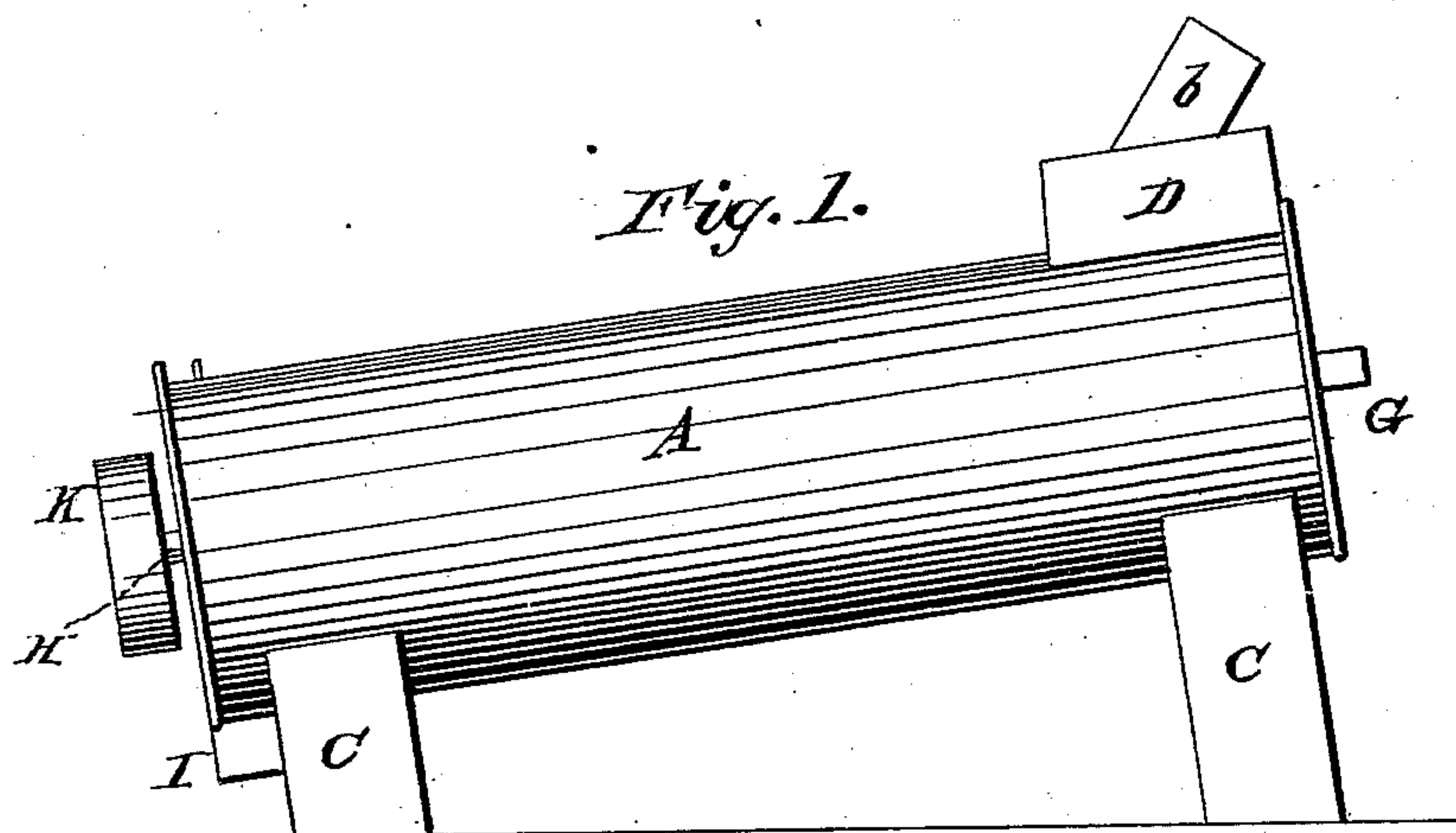


HENLEY & REINHART.

Grain Drier.

No. 85,007.

Patented Dec. 15, 1868.



Witnesses
John A. Ellis
J. W. Austin

Inventors
H. Henley & J. Reinhart.
Per
S. H. Alexander
Atty.



HENRY HENLEY, OF SHOALS, AND JOHN J. REINHART, OF LOO
GOOTEE, INDIANA.

Letters Patent No. 85,007, dated December 15, 1868.

IMPROVEMENT IN GRAIN-DRIERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, HENRY HENLEY, of Shoals, and JOHN J. REINHART, of Loogootee, in the county of Martin, and State of Indiana, have invented certain new and useful Improvements in Meal and Grain-Driers; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 represents a side view,

Figure 2, a plan view, and

Figure 3, a sectional view of our grain-drier.

Similar letters indicate like parts in each figure.

Our invention relates to certain improvements in grain-driers, the peculiarities of which will hereinafter be fully set forth.

In the accompanying drawings—

A represents an inclined cylinder, which is formed with an opening, B, for the purpose of ventilating the meal or other article to be dried, in its upper surface, and provided with legs, C C.

D is a cap, secured to the upper end of the cylinder, over the opening B, which is provided with the pipe b, through which the meal or other article to be dried is fed.

The steam-cylinder or chest E is made with metal strips, *a a a*, on its outer surface, forming receptacles for the grain or meal to be dried, and is also provided at each end with a tubular journal, G H, the journal G being used for the introduction of steam, and the journal H for the escape of steam and water.

The steam-chest E is pivoted in the cylinder A, by the journals G H passing through the upper and lower bases *a' a'* of the cylinder A.

On the journal H, inside the steam-chest E, there is formed an elbow, *m*, which extends to the inner surface of the cylinder E, where it is made funnel-shaped, so as to scoop up the water in the steam-chest, and

carry it off with the condensed steam, through the journal or discharge-pipe H.

K is a pulley, secured to the outer end of the journal H, by which rotary motion is given to the steam-chest E.

I is the discharge-spout for the grain, and is attached to the under side of the cylinder A, on a line with the axis of the journal H.

The operation of the machine is as follows:

The grain, or other article to be dried, is introduced at the opening *b*. A rapid rotary motion is given to the cylinder E by a belt passing around the roller K. The steam is introduced into the cylinder E through the pipe G, and passes out through the pipe H. The water of condensation, from the inclined position of the cylinder E, passes to its lower end, and, as the cylinder revolves, is carried out of it through the elbow-shaped tube *m*.

The meal, or other article to be dried, is stirred by the flanges *a a*, and dried by the heat from the cylinder E, and is discharged through the spout I.

Having thus fully described our invention,

What we claim as new, and desire to secure by Letters Patent, is—

1. The revolving cylinder E, provided with the tubular journal G, for the introduction of steam, in combination with the journal H and elbow-shaped tube *m*, substantially as set forth.

2. The revolving cylinder E, provided with the flanges *a a*, journals G and H, elbow-shaped tube *m*, and casing A, substantially as set forth.

3. The hollow journal H, in combination with elbow-shaped tube *m*, substantially as described.

In testimony that we claim the foregoing as our own, we affix our signatures, in presence of two witnesses.

HENRY HENLEY.

JOHN J. REINHART.

Witnesses:

A. R. BROWN,

THOMAS BROWN.